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| 10/076,389 | 02/19/2002 | Hisashi Chigusa | P 290562 5FG033427-USA-A | 1397 |
| 909 | 7590 | 10/03/2003 | EXAMINER ROY, SIKHA | |
| PILLSBURY WINTHROP, LLP P.O. BOX 10500 MCLEAN, VA 22102 | | | ART UNIT 2879 | PAPER NUMBER |

DATE MAILED: 10/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/076,389

Applicant(s)

CHIGUSA ET AL.

Examiner

Sikha Roy

Art Unit

2879

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) 11-17 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3,5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Election/Restrictions

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-10, drawn to display unit, classified in class 313, subclass 479.
- II. Claims 11-17, drawn to method of manufacturing the display, classified in class 428, subclass 447.

The inventions are distinct, each from the other because of the following reasons:

Inventions II and I are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the product of surface treatment films in the display as claimed can be made by a materially different process such as ultrasonic dispersion.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

During a telephone conversation with Mr. Dale Lazar on September 11, 2003 a provisional election was made with traverse to prosecute the invention of Group I, claims 1-10. Affirmation of this election must be made by applicant in replying to this Office action. Claims 11-17 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

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Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Specification

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1, the limitation reciting the content of silane coupling agent in the absorption layer is seven times as high as the total content of SiO₂ and organic coloring matter and lower is indefinite which renders the claim indefinite. The lower value can be anywhere between less than seven including zero. For examination purpose the examiner assumes the content of silane coupling agent in the absorption

film can be anywhere between seven and less including zero of the total content of SiO₂ and organic coloring matter.

Claims 2-10 are rejected being dependent on the base claim 1.

Regarding claim 2 the limitation of the silane coupling agent content is from two times to seven times the total content of SiO₂ and organic coloring matter specifies the lower limit of the silane coupling agent content as two times total content of SiO₂ and organic coloring matter, the upper limit being seven. But the claim recites the silane coupling agent content can be 'seven times as high or lower' which can include zero value of the content of the silane agent. This renders the claim indefinite. The examiner interprets the limitation of silane coupling agent content is from twice to seven times as high as total content of SiO₂ and organic coloring matter.

Regarding claim 3 the limitation of the silane coupling agent content is from three times to five times the total content of SiO₂ and organic coloring matter specifies the lower limit of the silane coupling agent content as three times total content of SiO₂ and organic coloring matter, the upper limit being five. But the claim recites the silane coupling agent content can be 'five times as high or lower' which can include zero value of the content of the silane agent. This renders the claim indefinite. The examiner interprets the limitation of silane coupling agent content is from three to five times as high as total content of SiO₂ and organic coloring matter.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 5, 6, 8, 9 and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by EP 0999458 to Takao et al.

Referring to claim 1 Takao discloses (Fig. 1 page 9 claim 3) a display apparatus comprising a face surface and a multi-layered antireflection antistatic film 12 composed of three layers having an absorption layer (film) 9 on the face surface , a conductive layer 10 and a protect layer 11. The absorption layer 9 (page 5 lines 1-10, [0023], [0024]) contains organic coloring matter (Cu phthalocyanine, sulforhodamine B) and SiO₂.

Regarding claim 5 Takao discloses (page 3 lines 7-9) the conductive layer is composed of at least one of metals selected from the groups 6A, 8, 1B consisting of Ag, Pd, Pt, Cu, Cr and Au.

Regarding claim 6 Takao discloses (page 3 lines 9-12, lines 29-40) the absorption layer containing coloring material has selective absorption characteristic in the range 450nm to 650 nm. Takao further discloses that depending upon the amount of coloring material the selective absorption characteristic varies between 380 nm to 780 nm.

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Referring to claim 8 Takao discloses (page 2 lines 54-56 [0010] and claim 8) luminance reflectance of the multi-layered antireflection antistatic film is equal to 2% or lower.

Regarding claim 9 Takao discloses the surface resistivity of the multi-layered antireflection antistatic film is $1\text{K}\Omega/\square$.

Regarding claim 10 Takao discloses (page 2 lines 21-30) the multi-layered antireflection antistatic film is formed on a display apparatus such as Braun tube.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 0999458 to Takao et al. and further in view of JP 07-307133 to Oishi et al.

Takao discloses (Fig. 1 page 9 claim 3) a display apparatus comprising a face surface and a multi-layered antireflection antistatic film 12 composed of three layers having an absorption layer (film) 9 on the face surface, a conductive layer 10 and a protect layer 11. The absorption layer 9 (page 5 lines 1-10, [0023], [0024]) contains organic coloring matter (Cu phthalocyanine, sulforhodamine B) and SiO_2 .

Claim 1 differs from Takao et al. in that Takao et al. do not disclose the absorption layer containing silane coupling agent.

Oishi in analogous art of wavelength selective absorption film discloses (please see the function and example of the invention, [0037],[0044] in translation) silane coupling agent added to the organic coloring material and SiO₂ in the wavelength selection absorption film. It is further disclosed that addition of coupling agent helps the film coupled firmly and directly to the inorganic frame of glass with very good physical and optical characteristics.

Regarding claim 4 Oishi discloses the silane coupling agent [H₂NC₃H₆Si] having amino group.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over EP 0999458 to Takao et al.

Takao discloses (page 10, claim 8) the film transmittance of the multi-layered film is equal to or less than 85%.

Regarding claim 7 Takao fails to disclose explicitly the transmittance 90% to 50% of the absorption layer and the transmittance of 100% to 70% of the conductive layer.

It is elementary that mere recitation of a newly discovered function or property, inherently possessed by things in the prior art, does not cause a claim drawn to distinguish over the prior art. Additionally, where the Patent Office has reason to believe that a functional limitation asserted to be critical for establishing novelty in the claimed subject matter may, in fact, be an inherent characteristic of the prior art, it possesses the authority to require the applicant to prove that the subject matter shown to be in the prior art does not possess the characteristic relied on. Takao discloses the transmittance of the multi-layered film in the range claimed comprising the absorption,

conductive and the protect layers which contain the same materials as claimed.

Therefore it would have been obvious to specify the absorption and conductive layers inherently possessing transmittance of 90% to 50% and 100% to 70% respectively and hence, the functional limitation of absorption and conductive layers having transmittance of 90% to 50% and 100% to 70% respectively is taught by Takao under the principles of functional inherency.

Allowable Subject Matter

Claims 2 and 3 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

Regarding claim 2 the prior art of record neither shows nor suggests the absorption layer on a display unit having all the claimed limitations and particularly comprising the silane coupling agent content being from twice to seven times as high as the total weight of the solid content of organic material and SiO₂.

Regarding claim 2 the prior art of record neither shows nor suggests the absorption layer on a display unit having all the claimed limitations and particularly comprising the silane coupling agent content being from three to five times as high as the total weight of the solid content of organic material and SiO₂.

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Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patent 4,904,525 to Taniguchi et al. discloses different organic groups of silane coupling agent used in antireflection optical film. U.S. Patent 5,218,268 to Matsuda et al., U.S. Patent 5,520,855 to Ito et al. and U.S. Patent 5,965,975 to Chigusa et al. disclose cathode ray tubes with optical films.

Contact Information


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sikha Roy whose telephone number is (703) 308-2826. The examiner can normally be reached on Monday-Friday 8:00 a.m. – 4:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimeshkumar D. Patel can be reached on (703) 305-4794. The fax phone number for the organization is (703) 308-7382.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

S.R.

Sikha Roy
Patent Examiner
Art Unit 2879


ASHOK PATEL
PRIMARY EXAMINER